Small Practice, Big Decision: Selecting an EHR System for Small Physician Practices

by Suzanne Columbus

A thorough plan and a structured approach keep your criteria on target, your progress on track, and your vendor list manageable.

Purchasing an electronic health record (EHR) system is probably one of the most important decisions a small physician practice will make. The systems require major investments of time and money, and they bring fundamental change to the practice's clinical and business processes. Automation has a significant impact on all aspects of a physician practice; it literally alters the way healthcare services are delivered.

When selection time comes, it's key to follow a structured approach. This will keep your criteria on target, your progress on track, and your vendor list manageable. How well a system ultimately meets the needs of the practice will depend in large part on how well the practice initially defined those needs before selecting a product.

Getting Started: Defining What You Need

How do you know when your practice is ready to begin the selection process? The first things a practice needs are time, stamina, and leadership. The average implementation for a sole practitioner can take anywhere from 12 to 18 months, including planning, design, implementation, and training. For practices with two to five physicians, the implementation time can be longer. Larger group practices with multiple specialties will require even more time due in part to the greater number and variety of templates to be designed, the additional staff requiring training, and the greater number of system interfaces to be developed.

Don't rush through the selection process and the planning that informs it. Before evaluating vendors, you must evaluate your practice. You must do some planning. Successful implementations begin with a vision. Where there is vision, there is success.

Set Goals, Check Standards

The vision should take the form of a strategic plan for the practice. The system you select and the practice redesign it requires must align with the practice's overall strategy. The goals you set for your future practice will provide an initial set of criteria that define the system you need.

Get started by describing what you would like technology to achieve in your practice. Set goals and ask yourself what areas of your practice can be improved with the integration of an EHR. Some good examples include:

- **Coding.** Are you capturing all codes for visits, and are the codes current? Outdated codes mean lost revenue and compliance risk. Look for an EHR system that offers coding assistance and annual updates.
- **Medication management.** Think about how many prescriptions are rewritten on a weekly basis due to illegible handwriting or because the drug is not covered on the patient's health plan. According to the Institute of Medicine, medication errors are responsible for a majority of the avoidable errors in healthcare today. Look for a system that can check drug-to-drug interactions and drug allergies and that has the capability to check plan formularies and prescribing patterns.
- **Quality improvement.** EHR systems can help track health maintenance issues for chronic disease patients; for example, they can send out reminders to diabetic patients for follow-up care including A1c tests, eye exams, and foot

exams. Select a system that can monitor the health maintenance of chronic care patients.

- **Patient satisfaction.** Patients may leave a physician's office feeling that they don't have a good understanding of their conditions or that they don't know what steps to take next. Many EHR systems offer a patient information library and the ability to link to quality information online. This increases patient satisfaction and enhances compliance.

There are many tools and resources available to assist you in setting goals like these; MedQIC, hosted online by the Centers for Medicare and Medicaid Services, is a good example. (MedQIC and other resources for physician practices are provided in the resource list at the end of this article.)

You can get help with the baseline functional criteria of a good EHR system from technical and industry associations. The Certification Commission for Healthcare Information Technology (CCHIT) certifies ambulatory EHR products, verifying that products offer core functionality, adequate security, and the ability to interact with other IT systems. (For more on CCHIT, see the article "The EHR Seal of Approval" *Journal of AHIMA* 77:5 (May 2006).)

Health Level Seven can also help define the requirements for your EHR system. The standards development organization offers a model that identifies the basic system functions that deliver expected benefits of an EHR. The model, currently in final draft form, is expected to be a fully approved industry standard later this year.

Document Your Workflow

It is necessary to evaluate all the processes inherent in the delivery of quality, cost-effective care. Business processes are as important as clinical ones.

Some of the key business processes to document include scheduling, triaging, patient registration, referral management, documentation of the patient encounter, orders, result management, protocols, treatment plans, clinical decision support, copayment capture, claims processing, and billing. Good workflow mapping will help you identify areas that need improvement in your office and consequently create specifications for the EHR system you select.

Documenting, reimagining, and anticipating redefined workflows can be a big challenge, especially for newer practices without much workflow experience and for practices that do not have dedicated staff in an HIM role. There are many resources available to assist with workflow mapping.

Documenting your workflow should include a thorough environmental scan, right down to a floor plan of the office, complete with power sources and network connections. Visualizing where computers will be installed will help you identify associated costs such as hardware, workstations, and new electrical outlets.

As you examine and identify workflow problems, it's important to be realistic about what computers and software can really do. No software program can do everything, and it can't perform even routine tasks that it hasn't been designed to do. For instance, a system can't generate reports that include lab results unless the lab results have been entered into the database. Likewise, alerts and reminders won't be generated unless someone has programmed them into the system.

Don't forget that one of the EHR's most critical business functions will be serving as the practice's legal business record. As such, it must be capable of complying with applicable state and federal regulations, accreditation standards, professional practice standards, and legal standards. Electronic records are legally admissible if the system that produced them is shown to be accurate and trustworthy.

Prior to system selection, your practice should review its policies and procedures for maintaining a legal record. These policies and procedures should include data recovery, data exchange, HIPAA security, litigation, transmission, and authentication. They will add to your list of requirements of a new EHR system. (For more on assessing legal functionality, see the articles "EHR Exam" and "Is It Legal?" *Journal of AHIMA* 77:5 (May 2006).)

Face the Interfaces

One of an EHR's most valuable assets is its potential to share information with other IT systems such as lab and diagnostic services. Interfaces allow the EHR system to communicate with other applications. These applications can reside outside the

practice, such as lab applications, or can be another system within the practice, such as a billing system.

Interface development is completed during the implementation phase; however, interface functions and costs must be a consideration during system selection. You cannot assume that a given EHR product will automatically communicate with other electronic functions such as appointment scheduling or billing. Ask vendors to address the issue of integrating lab and radiology results into the electronic record.

Many vendors offer ancillary services such as automatic statement processing, billing services, consulting services, additional coding enhancements, and claim scrubbing. Ask about such additional services. While you may not be interested in them now, you may want to take advantage of these services later. These items are considered third-party or add-on applications.

Many practices are considering the implementation of portals that offer patients a secure Internet connection to the practice. The portal allows patients to schedule appointments, complete paperwork, and access test results (or even their medical record), depending on the services the practice offers. These portals have the potential for increased practice production, increased revenues, and increased patient satisfaction. If you are interested in patient portals, now is the time to investigate.

Interfaces can be a tricky piece of system selection and the implementation that follows. Red flags during the selection process include:

- One-way or bidirectional interface not specified. The system may only accept demographic or appointment data from the practice management system but not feed data back to it.
- Data format not specified. Data can be entered into EHRs in one of two formats--as free text (unstructured data) or as defined elements (structured data) such as forms and pick lists. Each practice must weigh the pros and cons for itself.[1] However, ask vendors if their products support standard vocabularies such as SNOMED, Medcin, and LOINC.
- Additional license costs not specified. Additional fees for third-party applications could apply, such as plug-ins for a drug database or CPT and ICD-9 coding, code scrubbing, database user seats, and anti-virus software.
- Interface promised but not available. A vendor may say it can interface with your billing application or a lab system, but after the contract is signed it may advise you that the interface is not available. That can place a serious strain on the practice and require you to enter data twice.

Choosing a Vendor

System selection is the most intense component of the implementation process. Sorting through the many applications out there can be mind-boggling. Estimates vary, but there are more than 200 vendors in the marketplace. Constant changes in the environment muddy the waters. Vendor mergers and acquisitions add to the confusion, but don't lose focus or hope. The larger mergers have provided research and development funds necessary for more robust functionality and higher levels of customer service.

The first choice to make is whether you want to host the hardware and software yourself. Application service providers (ASPs) license their software and maintain it on their own servers off site. The practice accesses the EHR over a high-speed Internet connection. This option works well for small practices since there are lower up-front costs involved and fewer IT responsibilities. Some ASPs offer locally hosted systems, locating and maintaining the server in your office.

There are risks associated with having your patient data managed by another company, and it is important to manage issues of data ownership and business continuity. (For more information, see "Contracting for ASP Services" *Journal of AHIMA* 77:5 (May 2006).)

System selection for small practices often begins with product demonstrations. Vendors may be unwilling to go through a formal RFP process with a small practice. You should identify at least five systems to review. If possible, work with other physicians in your area. Look into an informal collaborative--it makes the selection process easier and can provide leverage with vendors.

Whether you go it alone or join with other local practices, you will need to establish a structured selection process. This will allow you to evaluate systems in a consistent manner, make effective apples-to-apples comparisons, and avoid being easily distracted by sales pitches.

Begin by establishing a selection team that will be responsible for evaluating systems. Ensure the team includes representatives from all departments that will use the system, including quality improvement, medical records, nursing, clerical, billing, and IT. In a small practice that could be your entire staff. Make sure the needs assessment addresses the needs of the entire practice.

Develop a standard set of questions to ask about each product reviewed. Use an evaluation matrix or another scoring tool to compare vendors on features and functionality. Determine the issues on the matrix that are most important to you. Compare products on ease of use, workflow (how the product affects, and is affected by, the practice's current workflow), availability of features (what features are standard, require customization, or are not available at this time), and cost (especially additional and associated costs, such as hardware and maintenance).[2]

Tips for Product Demonstrations

Involve staff in the product demonstrations. The system has to meet their needs as well, so include them in the evaluation process as much as possible. Try to conduct product demonstrations during nonpatient hours to minimize stress and loss of revenue.

During product demos, don't allow the salesperson to "drive" the product for you. Instead, use structured, predefined scenarios based on actual patient visits to better determine how well a system fits your workflow. (Many of the organizations in the resource list offer scripts. For more information on test scripts, see the article "EHR Exam" *Journal of AHIMA* 77:5 (May 2006).)

Use product demonstrations to determine first-hand how well and how easily a system allows you to document a visit, write a prescription, check a patient in, order a test, and other routine functions. Make sure the vendor does not use a scaled down or otherwise different version of the system during a demo--if it's not the most recent version, you do not want to see it. If there is a function you are interested in, ask the vendor to show it to you; if the person conducting the demo doesn't know how to perform the function, have them find someone who can.

Ask to see sample reports generated by the system and inquire into the flexibility of the reporting features. Can the system retrieve health information related to a single episode of care or encounter? Some systems have weak reporting functions; others, weak printing features, where each entry prints on a single page. (This makes for a real problem if the record has to be reproduced for any reason.)

Other questions to ask include:

- Does the vendor have service level agreements that define how quickly it responds to service calls?
- Does the vendor provide 24/7 support? Is there an extra charge?
- Are upgrades included in the maintenance fees?
- How frequent are the system updates?
- Does the vendor have a training plan and a project plan you can review?
- How many installations does the vendor have in your area?
- Does the vendor have a testing plan? Testing the system is necessary to ensure integrity of the data and increase the success of implementation.
- Can the system be implemented modularly? This allows some budgeting flexibility.

Making the Most of Site Visits

Once you have narrowed down your search to two vendors, you'll want to visit a practice where the system has already been implemented. Ask the vendors for a client list and contact the references yourself. If there is no local client base, keep in mind that you won't have the support of a local colleague, and that can be challenging. Only visit practices that are similar in size and specialty to yours; if they use different templates you may not get the full idea of how the system can be applied to your specialty. (For more on getting the most out of site visits, see the article "What's Wrong with RFPs?" *Journal of AHIMA* 77:5 (May 2006).)

During site visits, ask how engaged the vendor was in the implementation. For a truly successful implementation, you'll need a close relationship with your vendor. Be sure that the vendor's project manager provides face-to-face interaction with your staff. The project manager should also attend staff meetings and produce regular project updates as the implementation progresses.

This is an exciting time for your practice. If you do your homework and keep your selection process structured, you'll make a good decision on the system that best meets your practice's needs.

Financing the System

Demos are done, questions asked and answered, the verdict is in, and you have selected an EHR system. How are you going to pay for it?

Identifying costs and creating a budget at the start of the selection process will help determine the types of systems on your list. Costs include hardware (e.g., scanners, PCs, tablets, digital diagnostic equipment), software licensing, installation, training, annual maintenance fees, and support fees. You need to know the cost of installation as well as the annual cost associated with product maintenance.

Other costs to consider include network fees and database licenses. Implementation and training fees add up quickly, and don't forget that if you are not using a local vendor, there will be travel fees added to the mix. Ask questions in advance to avoid unanticipated third-party and ancillary costs. Average implementations can cost between $14,500 and $63,600 per full-time provider, with a median of approximately $45,750; median annual maintenance costs are approximately $7,200 per full-time provider, and practices average 2.5 years to reach a positive return.[1]

Consider going to a national bank or a Small Business Development Center (SBDC) in your state for business planning and financial counseling. In most states this service is available to all practices at no cost. SBDCs are under the auspices of the US Small Business Administration. They can assist practices in developing a long-term business plan and a strategy for return on investment. They also can help identify resources for low-interest loans.

Members of the American Academy of Family Practice may be eligible to receive a discount from the Center for Health Information Technology. State departments of health and local medical societies also sponsor initiatives. Don't hesitate to reach out to the hospital you are affiliated with; they may be sponsoring an EHR initiative. And call your state DOQ-IT team. Based in state quality improvement organizations, DOQ-IT teams provide small to mid-sized adult primary case practices with free assistance in planning for IT adoption.

To manage your expenses:

- Determine a business plan and a budget.
- Consider a bank loan. Loans for technology and equipment usually have three- to five-year terms with favorable interest rates.
- Consider contracting with an application service provider, which can reduce the upfront investment and hardware maintenance costs.
- Don't buy a Ferrari if you only need a Toyota.

Note

1. Miller, Robert, et al. "The Value of Electronic Health Records in Solo or Small Group Practices." *Health Affairs* 24, no. 5 (2005): 1127-37.

Notes

1. Fenton, Susan H. "Structured or Unstructured: Options for Clinician Data Entry in the EHR." *Journal of AHIMA* 77, no. 3 (2006): 52-53.

2. Object Health. "Electronic Health Record (EHR) Product Guide." California HealthCare Foundation. May 2005. Available online at http://communityclinics.org.

Resources

AHIMA. "Update: Maintaining a Legally Sound Health Record--Paper and Electronic." *Journal of AHIMA* 76, no. 10 (2005): 64A-L. Available online at www.ahima.org. AHIMA offers a range of additional resources on EHR, workflow, and health data management issues.

American Academy of Family Physicians, Center for Health Information Technology. Assistance adopting health IT, ranging from planning to financing, is available at www.centerforhit.org.

American Medical Informatics Association. The Got EHR program is online at www.amia.org.

California HealthCare Foundation. "Electronic Medical Records: A Buying Guide for Small Physician Practices." 2003. Available online at www.chcf.org/publications. The foundation also offers a range of other health IT resources.

Certification Commission for Healthcare Information Technology. Information on certified ambulatory EHR products is available at www.cchit.org.

Community Clinics Initiative. "Healthcare Technology Resource Guide." 2005. Available online at www.communityclinics.org.

Comprehensive Guide to Electronic Health Records. New York, NY: Faulkner and Gray, 2000.

eHealth Initiative. "eHealth Initiative EHR Master Quotation Guide," which assists small and medium-sized practices compare the costs of EHR products, is available at http://toolkit.ehealthinitiative.org (click on "Practice Transformation"; free registration required). eHealth Initiative offers additional health IT resources at www.ehealthinitiative.org.

Healthcare Information and Management Systems Society. The Ambulatory EHR Selector is available at www.himss.org.

Health Level Seven. Information on the EHR functional model and accompanying criteria is available online at www.hl7.org.

Institute for Healthcare Improvement. Resources for office practices accessible under "Topics" at www.ihi.org.

Institute of Medicine. *Key Capabilities of an Electronic Health Record System: Letter Report.* 2003. Available online at http://books.nap.edu/html/ehr/NI000427.pdf.

Lowes, Robert. "Why Not Lease Your Computers?" *Medical Economics*, June 4, 2004: 17. Available online at www.memag.com/memag.

Medicare Quality Improvement Community. Resources on all stages of EHR adoption from planning to post implementation are available at www.medqic.org.

Office of the National Coordinator for Health Information Technology. Information on federally coordinated efforts to promote health IT, including clinical EHRs, is available at www.hhs.gov/healthit.

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